

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Amended) A nozzle for ultrasound wound treatment, for producing a spray of liquid using an ultrasound transducer tip, directing and delivering said spray onto the wound surface, comprising:

a main body having a proximal end that removably attaches to an ultrasound transducer, said main body also having a distal end which is marginally close to a distal end of the ultrasound transducer tip,

said distal end of said main body having a gap with said distal end of said ultrasound transducer tip,

said distal end of main body being coaxially placed about the said ultrasound transducer tip,

said main body being connected with at least one reservoir, for holding and delivering a wound treatment solution at a most distal end of said ultrasound transducer tip via an opening disposed about the most distal end of the ultrasound transducer tip for producing said spray.

2. (Withdrawn) A nozzle according to Claim 1, wherein said main body is connected with two or more reservoirs, holding and delivering different wound treatment solutions separately to the distal end or marginally close radial side of said ultrasound transducer tip to be mixed and sprayed onto the wound.

3. (Withdrawn) A nozzle according to Claim 1, wherein said main body is connected with at least one reservoir and at least one gas tube, for delivering different wound treatment solutions and gas separately to the distal end or marginally close radial side of said ultrasound transducer tip to be mixed and sprayed onto the wound.

4. (Previously Amended) A nozzle for ultrasound wound treatment according to Claim 1 for producing a spray of liquid using an ultrasonic transducer tip, directing and delivering said spray onto said wound surface, further comprising a valve for controlling flow rate.

5. (Withdrawn) A nozzle according to Claim 4, wherein said main body has a trigger for controlling the position of said valve.

6. (Previously Amended) A nozzle according to Claim 1, wherein a distal end of the nozzle from the inside is cylindrical.

7. (Withdrawn) A nozzle according to Claim 1, wherein a distal end of nozzle from inside is cone.

8. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the inside is oval.

9. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the inside is elliptic.

10. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the inside is rectangular.

11. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the inside is multiangular.

12. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the inside is threaded.

13. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the inside is combination of different form.

14. (Original) A nozzle according to Claim 1, wherein the distal end of the nozzle from the outside is cylindrical.

15. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the outside is cone.

16. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the outside is oval.

17. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the outside is elliptic.

18. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the outside is rectangular.

19. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from the outside is mutiangular.

20. (Withdrawn) A nozzle according to Claim 1, wherein the distal end of the nozzle from outside is a combination of different forms.

21. (Original) A nozzle according to Claim 1, wherein the main body of the nozzle has a reservoir on the top.

22. (Withdrawn) A nozzle according to Claim 1, wherein the main body of the nozzle has a reservoir on the bottom.

23. (Original) A nozzle according to Claim 1, wherein the main body of the nozzle has a reservoir on the side.

24. (Withdrawn) A nozzle according to Claim 1, wherein the main body of the nozzle is connected with the said reservoir via hose/tube.

25. (Original) A nozzle according to Claim 1, wherein the main body of the nozzle has a rigidly connected reservoir.

26. (Withdrawn) A nozzle according to Claim 1, wherein the main body of the nozzle has an elastic reservoir.

27. (Withdrawn) A nozzle according to Claim 2, wherein a valve is located in main body of the said nozzle.

28. (Withdrawn) A nozzle according to Claim 2, wherein a valve is located in the said reservoir.

29. (Withdrawn) A nozzle according to Claim 2, wherein a valve is located between the said resevoir and said main body of the nozzle.

30. (Withdrawn) A nozzle according to Claim 1, wherein said nozzle has no valve and liquid is delivered from said reservoir to the distal end of ultrasound transducer tip via a pump or mechanical squeezing.

31. (Withdrawn) A nozzle according to Claim 1, wherein said nozzle is made from distinct pieces.

32. (Original) A nozzle according to Claim 1, wherein said nozzle is made from one piece.

33. (Withdrawn) A nozzle according to Claim 1, wherein the shape of the distal end of the said main body is a rectangle.

34. (Withdrawn) A nozzle according to Claim 1, wherein the shape of the distal end of the said main body is a cut.

35. (Withdrawn) A nozzle according to Claim 1, wherein the shape of the distal end of the said main body is a double cut.

S

36. (Withdrawn) A nozzle according to Claim 1, wherein the shape of the distal end of the said main body is a spherical/elliptic/oval.

37. (Withdrawn) A nozzle according to Claim 1, wherein the shape of the distal end of the said main body is waved.

38. (Withdrawn) A nozzle according to Claim 1, wherein the shape of the distal end of the said main body is a combination of different form.

39. (Withdrawn) A nozzle according to Claim 1, wherein the nozzle is self destructing with the first use.

40. (Original) A nozzle according to Claim 1, wherein the nozzle is sterile.

41. (Original) A nozzle according to Claim 1, wherein the nozzle is sterilizable.

42. (Original) A nozzle according to Claim 1, wherein the nozzle is disposable.

§
43. (Withdrawn) A nozzle according to Claim 1, wherein a part of nozzle is disposable.

44. (Cancelled) A method for treating a wound comprising the steps of:
providing a transducer having a distal radiation surface in proximity to the surface of the wound for emitting ultrasonic energy;
introducing a fluid to the distal radiation surface to produce a spray; and
delivering the emitted ultrasonic energy to the wound through the spray, wherein the ultrasonic energy provides a bactericidal and a therapeutic effect for decreasing the healing time for the wound.

45. (Cancelled) The method according to Claim 44, wherein the fluid includes one or more components selected from the group consisting of gas, drugs, liquid, and saline.

46. (Cancelled) The method according to Claim 44, wherein the therapeutic effect is selected from the group consisting of delivering at least one medicament to the wound, cleansing a surface of the wound, and stimulating healthy tissue cells.

47. (Cancelled) The method according to Claim 44, wherein the distal radiation surface is threaded.

48. (Cancelled) The method according to Claim 44, further comprising the step of introducing a second fluid to the distal radiation surface, and wherein the step of delivering the emitted ultrasonic energy to the wound includes the step of delivering the second fluid to the wound.

§, 49. (Cancelled) The method according to Claim 44, wherein the distal radiation surface has a shape selected from the group consisting of cylindrical, multiangular, rectangular, elliptical, ovular, and conical.

50. (Currently Amended) An apparatus for treating a wound comprising:
a transducer having a most distal end, said most distal end having a distal radiation surface configured for being arranged in proximity to the surface of the wound and for emitting ultrasonic energy; and

a fluid source for introducing a fluid to the distal radiation surface of the transducer via an opening disposed about the most distal end of the transducer to produce a spray, wherein the generated ultrasonic energy is delivered to the wound through the spray, and wherein the

ultrasonic energy provides a bactericidal and a therapeutic effect for decreasing the healing time for the wound.

51. (Previously Presented) The apparatus according to Claim 50, wherein the fluid includes one or more components selected from the group consisting of gas, drugs, liquid, and saline.

52. (Previously Presented) The apparatus according to Claim 50, wherein the therapeutic effect is selected from the group consisting of delivering at least one medicament to the wound, cleansing a surface of the wound, and stimulating healthy tissue cells.

8 53. (Withdrawn) The apparatus according to Claim 50, wherein the distal radiation surface is threaded.

54. (Cancelled) The apparatus according to Claim 50, further comprising means for introducing a second fluid to the distal radiation surface to produce another spray.

55. (Cancelled) The apparatus according to Claim 50, wherein the distal radiation surface has a shape selected from the group consisting of cylindrical, multiangular, rectangular, elliptical, ovular, and conical.

56. (Cancelled) A method for treating a wound comprising the steps of:

generating ultrasonic energy at a distance from the surface of the wound, such that the generated ultrasonic energy propagates through a gaseous medium;

introducing a fluid in at least one propagation path of the generated ultrasonic energy to produce a spray, wherein the fluid is introduced via fluid path; and

delivering the generated ultrasonic energy to the wound through the spray, wherein the ultrasonic energy provides a bactericidal and a therapeutic effect for decreasing the healing time for the wound.

57. (Cancelled) The method according to Claim 56, further comprising the step of introducing a second fluid to the at least one propagation path, and wherein the step of delivering the generated ultrasonic energy to the wound includes the step of delivering the second fluid to the wound.

58. (Cancelled) The method according to Claim 56, wherein the at least one propagation path is substantially perpendicular to the fluid path.

59. (Previously Amended) A nozzle for ultrasound wound treatment comprising:

a holder configured and dimensioned for receiving and holding a liquid reservoir;

a liquid propagation path defining a dispensing orifice and in fluid communication with the liquid reservoir for directing liquid from within the liquid reservoir to a most distal end of an ultrasound transducer via the dispensing orifice, wherein said ultrasound transducer is positioned within the nozzle for producing an ultrasonic spray and wherein said dispensing orifice is

§ disposed about the most distal end of said ultrasound transducer; and

a housing dimensioned for housing at least a portion of the ultrasound transducer and for delivering the ultrasonic spray towards a wound surface.
